

May 16, 2007

Ms. Suzanne Elledge Suzanne Elledge Planning and Permitting Services 800 Santa Barbara Street Santa Barbara, CA 93101

Mr. Tony Bortolazzo Wright & Company 130 Garden Street Santa Barbara, CA 93101

Subject: Revised Biological Analysis of the Proposed Site 3 Commercial Property Located at Garden

and Yanonali Streets, Santa Barbara, California

Dear Ms. Elledge and Mr. Bortolazzo:

This letter presents a revised analysis of the biological resources in the vicinity of the proposed Site 3 Commercial Property located in the City of Santa Barbara, California. The revised report addresses additional changes to the project description that have been proposed since the original report dated February 21, 2006 and a revised report dated February 1, 2007. These changes include relocation of a bioswale from the proposed buffer area and incorporation of a new drainage system that includes vegetated swales for infiltration, biofiltration and limited detention, and infiltration trenches into the project design. This change was made so that construction and grading would not occur within a 25-foot buffer from the top of the west bank of Laguna Channel and would avoid any impact to the channel associated with grading, construction, or occupancy. The re-designed drainage system will ensure that run-off from the site is carried to infiltration systems. Post-development runoff will be maintained at predevelopment levels and will be directed into an existing storm drain system that outlets into Laguna Channel.

The project site is located on the southern portion of the City of Santa Barbara. Garden Street borders it on the west, with the Garden Street onramp to Highway 101 on the north, Laguna Channel on the east, and Yanonali Street on the south. Figures 1 and 2 depict the Project Vicinity and the Project Site, respectively (all figures are included at the end of this letter report). Photos taken during the survey are also included at the end of this report.

## **Survey Methods**

SAIC botanist and wetland specialist Lauren Brown visited the site on January 30, 2006 for the purpose of evaluating the vegetation resources and potential wetlands associated with the project site, including the adjacent Laguna Channel. Water was present in the channel, and

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wetland boundaries were very distinct based on vegetation and topography. Formal wetland delineation was not performed since the extent of federal and state wetlands were determined based on the presence of wetland vegetation and water within the channel.

## **Survey Results**

The Site 3 Commercial Property is an unpaved lot surrounded by fencing that currently supports light industrial uses. Additional fencing further divides the site. Several small buildings, piles of hardscape materials (i.e., boulders, gravel, non-plant ground covers, etc.), and many vehicles that support the current use were observed on the lot during the survey. Most of the project site is devoid of vegetation with the exception of ornamental plantings along the fence lines adjacent to roads (Photos 1 and 2). Due to the lack of vegetation, level of human activity, and proximity to high use roads, including Highway 101, the ability of the site to support biological resources is likely limited to Laguna Channel on the eastern boundary of the project site and a few wildlife species adapted to such areas. These species include house finch, English sparrow, American crow, and Brewer's blackbird as well as rats and mice.

The vegetation on the west bank of Laguna channel is primarily non-native upland plant species including Canary Island palm, castor bean, and fennel. Several of these species are considered to be wildland pest plants by the California Invasive Plant Council (CaIIPC 2006). Other non-native plants on both banks include smilo grass, wild radish, Bermuda buttercup, and cheeseweed. Native plants include a wide band of California bulrush within the channel and several western sycamore trees on the western bank (Photos 3 and 4). The sycamores may have been planted as there appeared to be irrigation lines associated with the trees and the trees were the same size. Figure 3 depicts the vegetation on the bank of Laguna Channel adjacent to the proposed project site. Table 1 lists the plants observed during the survey including their common name, scientific (Latin) species name, Wetland Indicator Status (WIS), and CaIIPC rating. The California bulrush (WIS-OBL) would qualify as hydrophytic vegetation, and channel banks that support stands of bulrush meet the state and federal definition of wetlands as described below. Surface water was present in the channel during the survey. Trash and debris were observed throughout the channel.

## Definition of Wetlands and Waters of the U.S.

Federal wetlands and other Waters of the U.S. have legal protection in accordance with Section 404 of the Clean Water Act (33 U.S.C. Section 1344), and the U.S. Army Corps of Engineers (USACE) generally requires the issuance of a permit, or coverage under an existing permit, for all actions that have the potential to degrade or modify these features. Under Section 404 of the Clean Water Act, wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. USACE jurisdictional wetlands are a subset of Waters of the U.S., which include, in addition to wetlands as defined above, areas subject to the ebb and flow of the tide and non-tidal areas that are within

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the limits of ordinary high water. Waters are currently described as any areas that might be considered waterways, either for commerce or recreation, even on a limited scale, and include tributaries to such waters. Frequently, the term "wetlands and other Waters of the U.S." is used when describing areas under USACE jurisdiction. Ordinary high water is defined as some line or other evidence that was "established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (USACE 1987).

In the State of California<sup>1</sup> and in Santa Barbara County, wetlands are defined as follows:

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year (Cowardin et al. 1979).

This definition allows for areas such as seasonal wetlands (e.g., vernal pools, vernal swales) to be considered during environmental review of a project. In the California coastal zone, the California Coastal Commission (CCC), with the assistance of the Department of Fish and Game (DFG) is responsible for determining the presence of wetlands subject to regulation under the California Coastal Act. As the primary wetland consultant to the CCC, the DFG essentially relies on the USACE wetland definition and classification system. However, one important difference in the DFG delineation process compared to the USACE process, is that the DFG only requires the presence of one attribute (e.g., hydrology, hydric soils, or hydrophytic vegetation) for an area to qualify as a wetland (CCC 1994).

The City of Santa Barbara (1994) does not have a definition of wetlands. However, the City's policy does state the following:

Related to these [water and marine environments] resources, the Coastal Act of 1976 has a number of policies, which are to be used as a guide in setting local goals and policies.

<sup>1</sup> Porter-Cologne Water Quality Control Act and the Central Coast Regional Water Quality Control Board Basin Plan allow for the CCRWQCB to evaluate potential pollutant discharges into wetlands as defined by the State of California.

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### Discussion

Laguna Channel is identified as an intermittent stream but the segment adjacent to the project site appears to contain water much if not all of the year due to its low elevation and the potential for high groundwater. It is mostly contained within a storm drain system except for a created channel that extends from Highway 101, on the northeast project boundary, to the outflow on the beach. The channel is within a culvert at both Highway 101 and Yanonali Street, adjacent to the project site, as well as other street crossings downstream. The channel primarily collects stormwater runoff from urbanized areas and discharges into the Pacific Ocean, and at times into the Mission Creek lagoon. There is a tide gate at the mouth of the channel to prevent tidal influx (City of Santa Barbara 2005).

The project site does not support individuals or habitat for any sensitive plant or animal species, although Laguna Channel south of Yanonali Street, south of the project site, supports the only known breeding location for southwestern pond turtles (California Species of Special Concern) within the city limits (City of Santa Barbara 2005). A pond turtle was also observed in the portion of Laguna Channel that is adjacent to the project site (as noted in the 30-Day Development Application Review team Comments, City of Santa Barbara, August 2006). In addition, Mission Creek lagoon, downstream of the project site, provides habitat for the tidewater goby (*Eucyclogobius newberryi*) and steelhead trout (*Onchorynchus mykiss*), both federally-listed as endangered and California Species of Special Concern. When Laguna Channel flows into the Mission Creek Lagoon, tidewater gobies can be present in Laguna Channel downstream of the tide gate.

Development of the Proposed Site 3 Commercial Property would include construction of several buildings and parking areas within the project site. A 25-foot setback from the top of the Laguna Channel bank is included in the project plans. No grading or construction would occur within the 25-foot set back from the top of the Laguna Channel bank. Although the project would result in an increase in the amount of paved surface, the existing surface of the project site is virtually impervious due to compaction from current and past uses. The project applicant is proposing to install vegetated swales for infiltration, biofiltration and limited detention, and infiltration trenches located within and adjacent to the parking lot to treat storm water runoff. The swales will be vegetated with a mix of non-native and native grassy species and allow water to collect and gradually infiltrate into the ground. The proposed drainage system would also include other Best Management Practices (BMPs) to further address water quality, which would eliminate potential impacts associated with surface water runoff into Laguna Channel. Therefore, construction and occupation of the site would not directly affect wetlands, riparian habitats, or aquatic resources associated with Laguna Channel. applicant proposes to landscape the 25-foot buffer outside the bank of Laguna Channel, which is currently bare, with native plants to sheild the creek from the developed area (a parking lot is adjacent to the buffer) and enhance the buffer area adjacent to the existing channel.

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Other potential indirect impacts to biological resources associated with Laguna Channel include those related to changes in the level of human and vehicle activity, noise, air quality emissions, and lighting. Since the project site currently supports light industrial activity and is adjacent to high use roads, including Highway 101, impacts associated with the increased human activity, noise, potential air pollution, and lighting are likely to be minimal and would not significantly affect wildlife resources in the project area. However, the project applicant is proposing to landscape the 25-foot buffer area between the top of the bank of Laguna Channel and the proposed project (parking lot) with native plants for the purpose of enhancing the buffer area. The recommendations below are provided for the purpose of ensuring any potential impacts to the biological resources along Laguna Channel are avoided.

#### Conclusions and Recommendations

The following conclusions are based on observations made during the site visit and a review of federal, state, and local definitions of wetlands. Since there would be no impacts to Laguna Creek, then mitigation to reduce impacts is not required or proposed. However, the following include recommendations for planting the 25-foot buffer area with native plants. In addition, a Draft Buffer Enhancement Plan is included as an attachment to this report that incorporates the following recommendations:

- As proposed, project construction and operation would have no direct or indirect impacts to Laguna Channel or downstream resources. Based on the current project design, potential impacts to Laguna Channel are avoided by incorporating the 25-foot buffer from the top of bank and incorporated an infiltration system and other BMPs storm water runoff.
- 2. The applicant is proposing to plant native plants within the 25-foot buffer outside the bank of Laguna Channel. A planting plan that includes native plants that grow adjacent to stream channels should be prepared for the 25-foot buffer area at the direction of a qualified biologist with experience in creek and adjacent upland habitats in coastal areas of Santa Barbara County. Planting should be restricted to the 25-foot buffer area so as not to cause destabilization of the channel banks or contribute sediments or other potential pollutants, such as fertilizer or herbicide residue, into the channel where it can be moved downstream. Plant materials should be native species that commonly occur outside of natural channel banks in the project vicinity and should be grown from locally collected sources. The quantity and species to be planted should be included in the planting plan.
- 3. Incorporating native plants that will screen the channel into the revegetation plan for the 25-foot buffer area above the channel bank will enhance habitat for wildlife by shielding the creek from noise and lighting associated with human activities (existing and proposed) at the project site. Native upland shrubs such as toyon (*Hetermoeles arbutifolia*) and lemonade berry (*Rhus integrifolia*) would be suitable for this type of planting.

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- 4. The irrigation plan should include measures to avoid runoff from irrigation associated with landscaping, including the buffer area planting, such as drip irrigation and an irrigation monitoring program.
- 5. Landscape maintenance for the project should include measures to minimize or avoid the use of fertilizers and herbicides/pesticides, especially within the native plant buffer area.

If you have any comments or questions regarding the content of this letter, please contact me at (805) 570-7993/FAX (805) 438-4835 or email: <a href="mailto:brownla@saic.com">brownla@saic.com</a>.

Sincerely,

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

Lauren Brown Project Manager

cc: Rosie Thompson, SAIC

### References

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- CalIPC (California Invasive Plant Council). 2006. The California Invasive Plant Inventory. February. Website: <a href="http://www.cal-ipc.org">http://www.cal-ipc.org</a>.
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- USACE. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, U.S. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, Mississippi.
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Table 1. Plant Species Observed

Common Name	Species Name <sup>1</sup>	WIS <sup>2</sup>	CalIPC <sup>3</sup>
Bermuda buttercup	Oxalis pes-caprae		Moderate
California bulrush	Scirpus californicus	OBL	
Canary Island palm	Phoenix canariensis		Limited
Castor bean	Ricinus communis	FACU	Limited
Cheeseweed	Malva parviflora		
Eucalyptus	Eucalyptus sp.		Moderate
Fennel	Foeniculum vulgare	FACU	High
Giant reed	Arundo donax	FACW	High
Smilo grass	Piptatherum miliaceum		Limited
Sow thistle	Sonchus oleraceus		
Western sycamore	Platanus racemosa	FACW	
Wild radish	Raphanus sativus		Limited

Notes: Species in bold are native plants.

- 1. Scientific names follow the Jepson Manual (Hickman, 1993)
- 2. WIS = Wetland Indicator Status (USFWS 1988, 1997) -
  - FAC (Facultative) = Equally likely to occur in wetlands or nonwetlands (estimated probability 34-66%).
  - FACW (Facultative Wetland) = Usually occur in wetlands (estimated probability 67-99%), but occasionally found in nonwetlands.
  - FACU (Facultative Upland) = Usually occur in nonwetlands (estimated probability 67-99%), but occasionally found in wetlands (estimated probability 1-33%).
  - OBL (Obligate Wetland) = Occur almost always (estimated probability >99%) under natural conditions in wetlands. NI = Not an Indicator in California (or sufficient information not available).
  - \* = following a regional Indicator identifies tentative assignments based on limited information from which to determine the indicator status.
  - + or = used with the Facultative Indicator categories to more specifically define the regional frequency of occurrence in wetlands. A (+) indicates plants more frequently found in wetlands and a (-) indicates plants less frequently found in wetlands.
- 3. CalIPC = California Invasive Plant Council Rating (CalIPC 2006):
  - High –Species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.
  - Moderate These species have substantial and apparent but generally not severe ecological impacts on physical processes, plant and animal communities, and vegetation structure.
  - Limited These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score.

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# **FIGURES**



Figure 1. Project Vicinity

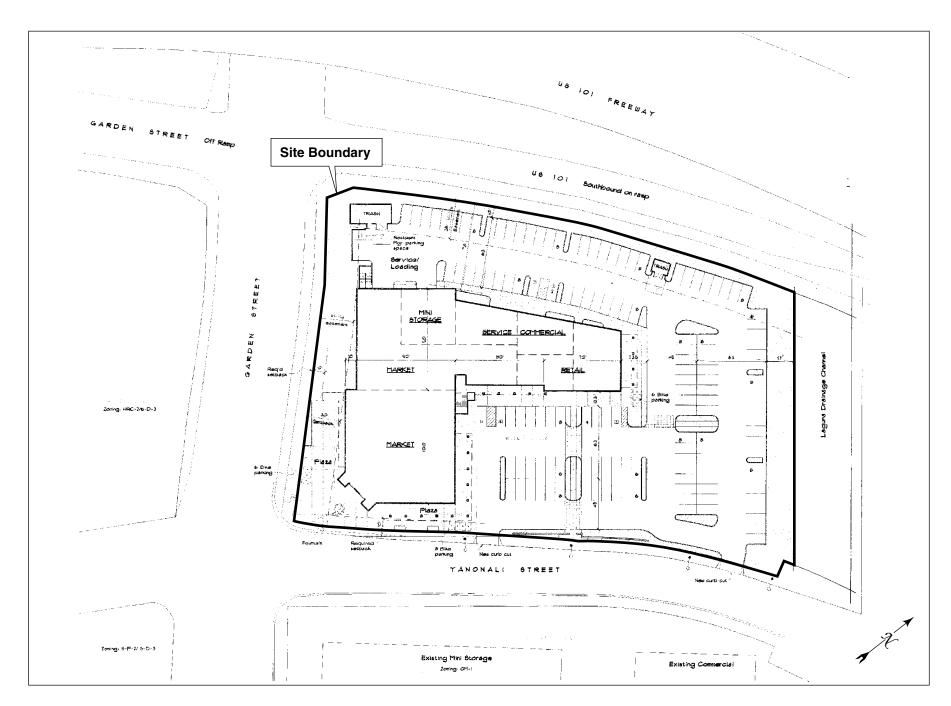


Figure 2. Project Site

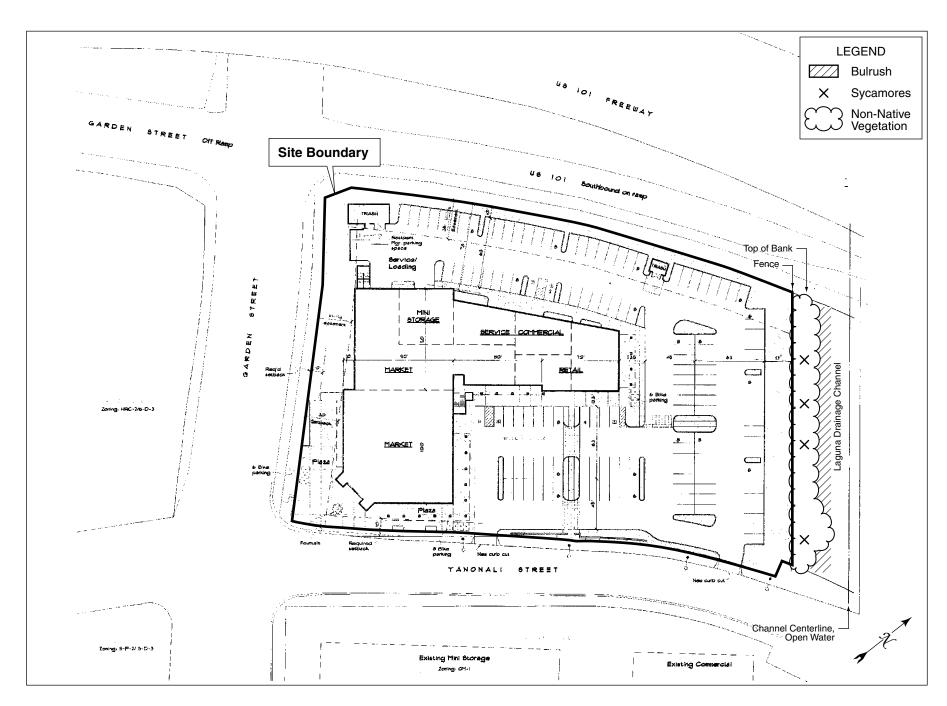


Figure 3. Vegetation Associated with Laguna Channel Adjacent to Project Site

# **PHOTOS**



Photo 1: Oleander along fence on Yanonali Street



Photo 2: Ornamental and non-native vegetation along Garden Street on-ramp



Photo 3: Laguna Channel between Yanonali Street and Highway 101 (in background).



Photo 4: Sycamore on west bank of Laguna Channel

# **ATTACHMENT**

# DRAFT BUFFER ENHANCEMENT PLAN

The proposed development plan for Site 3 incorporates a 25-foot buffer area outside the top of the west bank of Laguna Channel to avoid impacts to Laguna Channel from site grading, development and occupancy. Since the buffer is adjacent to Laguna Channel, the applicant proposes to include planting native plants within the buffer for the purpose of shielding the creek channel from the development area (a parking area is proposed adjacent to the buffer). The following includes plant species and maintenance recommendations for the proposed buffer area.

No action is proposed within the channel or the channel banks. The project is avoiding impacts to the channel by incorporating the buffer and any actions, such as weed control or planting, within the channel banks may result in destabilization of the banks and potential impacts to the creek. Enhancement of the buffer area with native plants will be done in a manner that will avoid destabilization of the banks or potential impacts to the creek. If it is determined that the planting methods and plant species included in this plan could affect the creek banks or Laguna Channel, then a less intensive planting is recommended as an alternative (see the Less Intense Planting Alternative below).

## Site Preparation and Weed Removal:

Currently, most of the buffer area is unvegetated or partially vegetated with weedy non-native annuals and grasses. Prior to planting, any areas that support weedy annuals and grasses should be hand-pulled or weed-whacked to remove above ground vegetation and seed heads. Vegetative debris, especially seed heads, should be gathered for off-site disposal. No vegetative debris should be allowed to fall into Laguna Channel.

The use of herbicide is not recommended in this location due to the proximity of the creek. Also, the buffer area is fairly small so hand removal or weed-whacking should not be a burden in time and personnel.

## **Recommended Plant Species:**

The following native plant species are recommended for inclusion in the buffer planting area. Several small western sycamore are present on the bank of Laguna Channel, so planting only one or two trees within the buffer area is recommended, possibly to screen Highway 101, on the north side of the buffer, or Yanonali Street, on the south side of the buffer. Large shrubs, such as toyon, elderberry and lemonade berry, should be planted in the middle of the buffer (no closer than 10-feet from the top of bank channel) so they do not grow over the banks and shade

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the stream channel. Also, allow sufficient spacing between larger shrubs to avoid crowding and to allow personnel access for maintenance. Plant smaller shrubs, such as bush monkey flower and bush sunflower adjacent to the parking area. Plant native vines and perennial herbs and grasses in between the shrubs to provide cover in the understory and to help keep non-native species from establishing. Blackberry may be suitable as a barrier planting in areas where public access is not allowed.

Trees: Western sycamore Plantanus racemosa

Coast live oak Quercus agrifolia
Blue Elderberry Sambucus mexicana

Large Shrubs: Blue Elderberry Sambucus mexicana
Toyon Heteromeles arbutifolia

Lemonade berry Rhus integrifolia
Coffeeberry Rhamnus californica

Small Shrubs Santa Barbara honeysuckle Lonicera subspicata spp. subspicata

Bush monkey flower Mimulus aurantiacus
California rose Rosa californica
Bush sunflower Encelia californica

Vines/Perennials: California blackberry Rubus ursinus

Creek clematis Clematis ligusticifolia
Bee Plant Scrophularia californica

Native Grasses: Purple needlegrass Nassella pulchra

Meadow barley Hordeum brachyantherum

California brome Bromus carinatus

Native plants should be propagated from materials (seed or cuttings) local to the watershed or collected from Southern Santa Barbara County coastal areas. Trees and larger shrubs should be 1-gallon or 5-gallon size; small shrubs and vines should be 1-gallon size; and perennials and grasses may be planted from 1-gallon or smaller size containers.

Locally grown plants may be available from Growing Solutions in Santa Barbara (<a href="http://www.growingsolutions.org/">http://www.growingsolutions.org/</a>), an educational organization that specializes in collecting and growing plant materials from local sources for restoration and other projects using native plant species.

Less Intense Planting Alternative: If it is determined that larger shrubs and trees are not desirable within the buffer area, then a less intensive planting should be considered for the buffer area that includes a mix of the smaller shrubs and native perennials and grasses. Santa Barbara honeysuckle, bush monkey flower, purple needlegrass and California brome would be suitable for this type of planting. California blackberry would also be suitable for planting near the top of the banks or as a barrier planting.

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# **Planting Layout and Planting Methods:**

The Landscape architect for the development project is incorporating the buffer area into the landscape design. If trees and larger shrubs are incorporated into the buffer, then sufficient space should be provided to allow these species to grow to their normal width without shading the creek and to allow continued personnel access in between the shrubs for maintenance. Smaller shrubs and native herbaceous species can be planted at a higher density to cover the ground and discourage invasion by less desirable species.

While it is expected that the existing soils within the buffer area may be compacted due to past use, which included vehicle traffic, loosening the soils through disking or ripping within the buffer area is not recommended as this could result in loose soils or sediments falling into the creek. Soil disturbance should be limited only to excavating the planting hole for the container plants. Saturating the planting hole with water prior to planting and application of drip irrigation (as described under Irrigation below) should be sufficient to promote root development and plant establishment.

The application of mulch and soil amendments is typically not recommended for native plantings. However, a one-time application may be used to encourage native plant establishment and discourage invasion by non-native plants or weedy species.

The following are recommendations for planting container stock:

- Excavate a planting hole twice as large as the rootball.
- During planting, a one-time application of slow-release fertilizer may be added to the planting hole before backfilling and placing the plant in the hole.
- Partially backfill the planting hole with the soil excavated from the planting hole.
- With the palm of the hand covering the open end, upend the plant container. Carefully tap
  the container so the plant rests upside down on the hand, leaving the rootball completely
  intact.
- Examine the plant for a healthy root system. If there are signs of being rootbound or girdling, scarify the rootball.
- Insert the rootball into the planting hole so the top of rootball is slightly above finished grade. Firm the soil around the plant and add more backfill if necessary to bring soil to the root crown at finished grade.
- Irrigate immediately after installation to settle the soil. If roots become exposed, place additional soil around the root crown.

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*Mulch*: Following installation of container plants, appropriate mulch material should be spread to a depth of 3 inches around each plant. Mulch should be used to cover all of the surface within the buffer area up to 5 feet from the top of the bank of Laguna Channel. No mulch should be applied within 5 feet from the top of the bank to prevent any foreign material from going into the creek.

## Irrigation:

Prior to planting, each planting hole should be completely filled with water which should be allowed to soak into the soil. This procedure should be repeated until the soil in the hole is saturated. After planting, the plants should be watered by a drip irrigation system until the plants are established and able to survive without additional water (3 to 5 years). Drip irrigation will ensure the plants are watered regularly and cost effectively and will avoid any potential for runoff from the buffer area into the nearby creek. The drip irrigation system should be installed and operational immediately following installation of the plant materials and mulching. The system should be tested after installation and periodically inspected during use (i.e., quarterly) to ensure plants are being adequately watered and there is no runoff outside the buffer area.

# Maintenance and Monitoring:

The buffer area should be incorporated into the long-term landscape maintenance plan for the proposed project. Typically, the goal of a restoration project is to establish a self-generating plant community capable of sustaining itself in perpetuity. However, the buffer area is not proposed as a restoration project since the proposed development avoids impacting the creek and mitigation (which would likely include restoration) is not required. Additionally, the buffer area is very small and surrounded by urban development which will affect its ability to be self sustaining. Therefore, it is recommended that the buffer area be included in a long-term maintenance program that includes periodic removal of debris and non-native weedy species and, if needed, periodic replacement of plantings.

*Irrigation:* Native plants should be watered at least once every two weeks during the dry season. During the rainy season, plants should be watered only during those months with less than 1 inch of rain. Plants should be watered for at least three summers. At this point, native plants should be well established and watering can be discontinued following the third wet season. If watering is discontinued, then the irrigation system should be removed from the buffer area or at least from those plants that no longer require additional watering.

*Plant Health*: All container plants should be checked at least monthly during the first year after planting to ensure they are surviving and to detect any potential problems. In the second year, plants should be checked every other month and in the third year, plants should be checked quarterly. Once plants show signs of new growth, including new leaf production, flowering, seeding, then the plants may be considered successfully established.

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Weed Control: The buffer area should be periodically monitored to identify and remove any non-native or weedy species that may establish in between the native plants. Weeds should be removed by hand or with a weed whacker, if the infestation is large enough. Any plant material removed should be bagged and disposed of offsite. Use of herbicides is not recommended within the buffer area.

*Replanting*: It may not be necessary to replace every plant that does not survive initial planting or that dies during the life of the project. Smaller native shrubs and perennial plants are typically short-lived (5 to 10 years) and it is expected that over time some plants will die. Replacement of dead plants should only be needed if the loss results in large areas of bare soils that could be vulnerable to weed invasion or erosion.

*Debris removal:* The buffer area should be periodically inspected and all trash and non-organic debris should be removed from the site as discovered and disposed of off-site.

## **Success Criteria:**

Since the project is designed to avoid impacts to Laguna Channel or other biological resources, then mitigation is not required. The project applicant is proposing planting of the buffer area with native plants as part of the landscaping plan for the project to shield Laguna Channel from the project area. Since this is not a restoration plan, then success criteria are not applicable. However, the methods described in this plan would promote successful establishment and long-term maintenance of native plants within the buffer area.